



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

December 2, 2016

MEMORANDUM

SUBJECT: Surface Soil and Sediment Data,
Burlington PCB Site,
Cheraw, South Carolina

FROM: Sydney Chan, Physical Scientist *SPC*
Scientific Support Section

TO: Matthew Huyser, On-Scene Coordinator
Emergency Response, Removal & Protection Branch

THRU: Glenn Adams, Chief *TAF*
Scientific Support Section

Per your request, the Scientific Support Section (SSS) has reviewed data collected by the South Carolina Department of Health and Environmental Control (DHEC). The data consists of shallow surface soils (0-6 inches deep), deeper surface soils (6-18 inches deep), and sediments in Wilson Branch. The soil data was collected from residential yards, industrial areas, and from bank areas along the flow pattern of the creek. There were also some soil data collected from HuckleBerry Park. All of the data only included results for the two (2) specific Polychlorinated Biphenyls (PCBs), Aroclor 1248 and Aroclor 1254.

For this review, SSS has compared all shallow surface soil data from the residential yards, adjacent creek sediment, and park data to EPA's May 2016 residential Regional Removal Management Levels (RMLs) for Aroclor 1248 and Aroclor 1254. The concentrations of Aroclor 1248 and Aroclor 1254 in some samples are sufficiently elevated to warrant recommending a removal action. Because of the size of the contaminated area, number of affected parcels, and the different types of exposure areas, a tiered approach is recommended.

This memo is focusing on the highest concentrations of PCBs in residential yards above EPA's RML. SSS is recommending the first tier be based on currently occupied residential properties with concentrations greater than ten times (10X) the RML which is 230 mg/kg for Aroclor 1248 and 35 mg/kg for Aroclor 1254. The second tier would be based on currently occupied

residential properties with concentrations greater than the RML, which is 23 mg/kg for Aroclor 1248 and/or 3.5 mg/kg for Aroclor 1254.

There are multiple residential yards with concentrations above the residential RML and 10X the residential RML. Because of how the data was provided, SSS cannot identify exactly which properties have a residence on it nor if the home is currently lived in. Both tiers address currently occupied residential properties with residential yards and ditch surface soil samples adjacent to those yards. While soils within the ditch adjacent to the residential yards may not be contacted as frequently as residential soil, it poses the potential to re-contaminate the residential yards during heavy rainfall. The Scientific Support Section (SSS) has evaluated surface ditch data as surface soil due to these areas not being underwater the majority of the year. Both tiers include residential properties and adjacent ditch areas, prior to meeting Huckleberry Branch, that exceed the residential the RML and 10X the RML for Aroclor 1248 and for Aroclor 1254.

The park had 11 samples collected and of those samples, eight (8) are in Tier 2. SSS recommends the park area be considered like a residential property because of the proximity to residents and children playing in the park.

During the removal of any elevated PCB contaminated soils, a clean-up goal of 1 mg/kg total PCBs is recommended.

As discussed, SSS will be glad to assist you in looking into the next tiers to be potentially addressed at the site. Please contact me at 404-562-8907 or chan.sydney@epa.gov if you have any comments or questions regarding this review.